

**USE OF ANALOG-VALUED FLOATING-GATE TRANSISTORS TO MATCH  
THE ELECTRICAL CHARACTERISTICS OF INTERLEAVED AND  
PIPELINED CIRCUITS**

**ABSTRACT OF THE DISCLOSURE**

Methods of and apparatuses for matching the signal delay, clock timing, frequency response, gain, offset, and/or transfer function of signal pathways in electrical circuits such as, for example, time-interleaved and pipelined circuits using analog-valued floating-gate MOSFETs are disclosed. The methods and apparatuses disclosed are applicable to a variety of circuits, including but not limited to, sample-and-hold or track-and-hold circuits, quadrature mixers, analog-to-digital converters (ADCs), digital-to-analog converters (DACs), analog or digital filters, and amplifiers.